

In the Specification

Please amend the paragraph beginning on page 6, line 8, and ending on page 7, line 3, as follows:

The foregoing objects, and others, will in part be obvious and in part be pointed out more fully hereinafter in connection with a written description of preferred embodiments of the present invention illustrated in the accompanying drawings in which:

FIGURE 1 is a partially sectioned perspective view of a welding wire package including welding wire and a payout in accordance with the present invention;

FIGURE 2 is a sectional elevational view taken along line 2-2 in FIGURE 1;

FIGURE 2A is a detached exploded sectional view of the floating ring assembly;

FIGURE 3 is a top plan view of the welding wire package and payout shown in FIGURE 1;

FIGURE 4 is a top plan view of a welding wire package including another embodiment of a payout in accordance with the present invention;

FIGURE 5 is a sectional elevational view of the upper portion of the wire package taken along line 5-5 in FIGURE 4;

FIGURE 6 is a top plan view of a welding wire package including yet another embodiment of a payout in accordance with the present invention;

FIGURE 7 is a sectional elevational view of the upper portion of the package taken along line 7-7 in FIGURE 6;

FIGURE 8 is a top plan view of a welding wire package including still another embodiment of a payout in accordance with the present invention;

a 1
FIGURE 9 is a sectional elevational view of the upper portion of the package taken along line 9-9 in FIGURE 8;

FIGURE 10 is a top plan view of a welding wire package including another embodiment of a payout in accordance with the present invention; and

FIGURE 11 is a sectional elevational view of the upper portion of the package taken along line 11-11 in FIGURE 10.

Please amend the paragraph beginning on page 10, line 7, and ending on page 11, line 2, as follows:

a 2
Floating ring 90 creates tension in wire 52 and guides wire 52 in two ways. First, as wire 52 is unwound from wire coil 16 it moves about axis 24 thereby moving floating ring 90 relative to rings 60 and 62 as described above. The frictional resistance of ring 90 ~~is~~ as it moves relative to rings 60 and 62 creates tension in wire 52. Second, as wire 52 moves through gap G1 and opening 106, it engages floating ring edge 96 and one of edges 70 and 80 of rings 60 and 62, respectively, which creates tension in wire 52 and also guides the wire. Due to the floating ring width 102, and the diameters of inner and outer edges 96 and 98, wire 52 is constantly urging floating ring 90 outwardly at a differing point about axis 24. In this respect, as wire 52 urges floating ring 90 outward at engagement point 104, which is shown in Figures 1 - 3 as being at a first ring portion 112,

a 2 second ring portion 114, which is opposite first ring portion 112, and third and fourth ring portions 115 and 117 which are between the first and second portions and opposite one another become positioned over gap G1. As wire 52 moves from first portion 112 toward second portion 114, engagement point 104 moves ~~clockwise~~ counterclockwise about axis 24 toward ring portion 114 and, ultimately, portion 114 is urged outwardly toward drum surface 26 and first portion 112 is urged inwardly over gap G1. At this point, opening 106 is diametrically opposite the position thereof in Figures 1-3. This movement continues as wire 52 is unwound from wire coil 16 and causes the floating action of floating ring 90. As wire 52 passes through opening 106 it is directed by its engagement with the edges of the rings, and, as the engagement point 104 moves about drum axis 24, opening 106 moves relative to engagement point 104 about axis 24 in a similar fashion. Furthermore, by removing wire 52 through gap G1 and opening 106, a central removal point is achieved thereby reducing the stresses imparted on wire 52 as it is unwound from wire coil 16 and removed from package 10. These advantages are accomplished by utilizing rings 60, 62 and 90 which are simple in structure.

[Please amend the paragraph beginning on page 11, line 3, and ending on page 11, line 25, as follows:

a 3 In order to maximize the effectiveness of the rings, the following functional relationships between the rings, which are generally shown in the drawings, can be utilized. In this respect, if floating ring width 102 is less than $\frac{1}{2}$ the diameter of the outer ring inner edge 80 minus $\frac{1}{2}$ the

a³
:
diameter of the inner core surface 40, opening 106 is formed as wire 52 urges second portion 114 of floating ring 90 inwardly against inner core surface 40. Furthermore, if the floating ring width 102 is greater than inner ring width ~~74~~ 72, floating ring outer edge 98 is maintained over gap G1 as floating ring inner edge 96 engages core surface 40. In similar fashion, floating ring inner edge 96 will be generally centered over gap G1, relative to engagement point 104, if floating ring width 102 is generally equal to $\frac{1}{4}$ the diameter of inner ring outer edge 70 plus $\frac{1}{4}$ the diameter of outer ring inner edge 80 minus $\frac{1}{2}$ the diameter of inner core surface 40. The portion of floating ring 90 at second portion 114 can fully cover gap G1, while engagement point 104 is at first portion 112, if the diameter of floating ring inner edge 96 is less than $\frac{1}{2}$ the diameter of inner core surface 40 plus $\frac{1}{2}$ the diameter of inner ring outer edge 70. In addition, floating ring width 102 must be greater than the width of gap G1. In similar fashion, the diameter of floating ring inner edge 96 is to be less than the diameter of inner core surface 40 plus inner ring width ~~74~~ 72 for floating ring inner edge 96 to be maintained on inner ring top 66 at second portion 114 while engagement point 104 is at first portion 112. Furthermore, the diameter of floating ring outer edge 98 should be greater than the diameter of inner ring outer edge 70 plus the width of gap G1 in order for floating ring 90 to fully cover gap G1 at second portion 114 while engagement point 104 is at first portion 112. However, the diameter of floating ring outer edge 98 should be less than $\frac{1}{2}$ the diameter of drum surface 26 plus $\frac{1}{2}$ the diameter of outer ring inner edge 80 so that gap 106 can be formed at engagement point 104 as floating ring inner edge 96 engages inner core surface 40.

Please amend the paragraph beginning on page 12, line 2, and ending on page 12, line 25, as follows:

A⁴ Referring to Figures 4 and 5, a payout 120 is shown. Payout 120 includes inner and outer rings 60 and 62 which function as described above and further includes floating ring 122. Floating ring 122 is similar to floating ring 90 in that it includes a bottom 124 which rests on inner ring top 66 and outer ring top 82 and a top 126 which is opposite to and spaced from bottom 124. Floating ring 122 further includes an inner edge 128 and an oppositely facing outer edge 130. Furthermore, floating ring 122 has a substantially rectangular cross-sectional configuration with a thickness 132 and a width 134. However, floating ring 122 is a different size than floating ring 90 and therefore, wire 52 passes about floating ring outer edge 130 as it is unwound from wire coil 16 through gap G1. More particularly, wire 52 engages floating ring 122 at an engagement point 136 which urges ring portion 137 inwardly towards inner core 14. The width 134 of ring 122 is such that as the ring engages inner core surface 40, outer edge 130 thereof is positioned above and between outer edge 70 of ring 60 and inner edge 80 of ring 62, and over gap G1. Thus, outer edge 130 of ring 122 and inner edge 80 of ring 62 define a restricted opening 138 which like opening 106 is crescent shaped and extends about one-half the circumference of the gap G1. The diameters of inner edge 128 and outer edge 130, of ring 122 are such that the ring covers an increasing portion of gap G1 moving from ring portion 137 toward ring portion 139 when engagement point 136 is at ring portion 137. Accordingly, wire 52 can only pass through opening 138. As wire 52 is unwound from wire coil 16, the engagement point 136 and opening 138 move ~~clockwise~~ counterclockwise about the drum axis

24 toward ring portion 139 and back again toward ring portion 137 for each convolution of wire.

a4 Engagement of wire 52 with edge 130 of ring 122 results in the floating ring moving eccentrically relative to inner and outer rings 60 and 62 and axis 24. This creates tension in wire 52. Furthermore, during payout wire 52 engages floating ring edge 130 along with one or the other of inner ring edge 70 and ~~outer~~ inner ring edge 80 thereby further controlling the payout the of wire.

[Please amend the paragraph beginning on page 14, line 17, and ending on page 15, line 3, as follows:

a5 Referring to Figures 10 and 11, shown is a payout 230 which includes inner and outer rings 202 and 204, respectively, as shown in Figures 8 and 9, and further includes a brush ring 232. Brush ring 232 creates tension in wire ~~56~~ 52 by the frictional engagement between wire 52 and the many brush fibers or bristles 236 attached to the ring. Brush ring 232 is a stationary ring and is attached to top surface 238 of outer ring 204 such that brush fibers 236 extend radially inwardly toward inner ring 202 and cover gap G3. Brush fibers 236 have lengths 240 which are greater than the width 242 of gap G3 and, therefore, fibers 236 extend from brush retainer ring 234 over gap G3 to a point over and inwardly of edge 214 of inner ring ~~204~~ 202. Since fibers 236 are retained at one of their ends by retainer 234, the fibers deflect upwardly against the natural resiliency thereof to allow wire 52 to move about drum axis 24 in gap G3 as it is unwound from wire coil 16 while imposing a force on the wire which tensions the latter. In addition, wire 52 engages inner ring edge 214 and/or outer ring edge 208 which further tensions and guide the wire out of package 10. While brush fibers are

Ser. No. 10/083,426

LEE 2 13173

preferred, it will be appreciated that a thin film of latex or the like would provide the desired resiliency to control the payout and tension the wire.
